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Examining Chinese Tourists' Nature-based Tourism Participation Behavior: Incorporating Environmental Concern into a Constraint-Negotiation Model

Abstract

Finding the balance between economic development and preservation of the natural environment is a challenging yet important task. This is a particularly pressing issue in the case of China, as it is the largest and fastest-growing market for tourism. The purpose of this research is to examine Chinese tourists' participation in nature-based, tourism activities by incorporating tourists' environmental concern, measured by a revised New Environmental Paradigm (NEP) scale, into a tourism constraint-negotiation model. The responses of 409 Chinese tourists show environmental concern will positively affect tourists' motivation, which, in turn, will affect their negotiation strategy and ultimately their participation behavior. The theoretical and managerial implications of this study are discussed in the context of the tourism literature.

1. Introduction

The purpose of this paper is to examine Chinese tourists' participation in nature-based tourism activities by incorporating environmental concern into a tourism constraint-negotiation model. Weaver (2005) and Weaver and Lawton (2007) state nature-based tourism is an important segment of the ecotourism industry and research. According to the World Tourism Organization, 'approximately 10-20% of all international travel is related to nature experiences' (Fredman and Tyrväinen 2010, p.181). Mehmeoglu (2007) suggests as many as 60% of the international tourists can be categorized as nature-based tourists. Nature-based tourism can be defined as 'tourism that consists of traveling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring, and enjoying the scenery and its wild plants and animals, as well as any existing cultural manifestation found in these areas' (Boo 1990 in Luzar et al. 1995, p.544).

Within this tourism sector, nature-based tourism has a particularly significant role, as it has contributed greatly to the economy (Cater 2006; Luzar et al. 1995; Mehmetoglu, 2007). In addition, nature-based tourism gives participants an opportunity to be connected with nature (Lou and Deng 2008; Nisbet et al. 2009). On the other hand, this tourism activity has captured the attention of scholars and the public because of its potential negative impact on the environment. This is because some of these activities take place in remote and peripheral areas that need preservation, such as whale safari and mountaineering (Beedie and Hudson 2003; Luo and Deng 2008; Luzar et al. 1995; Nyaupane et al. 2004; Ong and Musa 2012; Mehmetoglu 2007; Wu and Liang 2009).

Scholars have been examining different aspects of nature-based tourism participation behavior, such as an individual's motivation to participate (e.g., Deng and Lou 2008; Liang and Crouch 2011; Williams and Soutar 2009) and the pursuit of

challenges (e.g., Bentley and Page 2001; Cater 2006; Mehmetoglu 2007; Wu and Liang 2011). However, the ecological issues associated with nature-based tourism—for example, how tourists are affected by their attitude and concern toward nature, how this relationship influences tourists' participation behavior, and what the practical implications are for tourism service providers and policymakers—have not yet been well studied (Beedie and Hudson 2003; Laing and Crouch 2011).

Finding the balance between economic development and natural environment preservation in China is a particularly important issue. Not only is China one of the emerging economies, but each year, 22 million Chinese individuals plan to travel outside of China while 2.1 billion Chinese individuals travelled for domestic tourism purposes during 2010 (Gu et al. 2012; Li et al. 2010). This makes China the largest and fastest-growing market for tourism. At the same time, it makes preserving and protecting the environment one of the top challenges for China's policy-makers and tourism operators (Han and Ren 2001; Li 2004; Ryan et al. 2010; Zhong et al. 2011).

To contribute to the tourism literature regarding the impact of environmental concern on tourists' participation in nature-based tourism activities, this study employed the constraint-negotiation models proposed by White (2008) and Hung et al. (2014). In addition, this analysis expands the model to include tourists' environmental concern, which are measured by the New Environmental Paradigm (NEP) scale. To date, no known research has incorporated the NEP scale into a tourism constraint-negotiation model. This study chose the NEP scale because it considers a range of environmental issues, including the relationship between humans and nature, views on ecocrisis, and the sustainability of the environment (Lück 2003; Luo and Deng 2013; Luzar et al. 1995).

The objectives of this research are as followed. First, this research plans to examine nature-based tourists' participation behavior by incorporating tourists'

environmental concern into the constraint-negotiation model. Additionally, this model's applicability to the context of nature-based tourism will be explored. Second, this study will investigate the influence of environmental concern on tourists' motivation and participation behavior. Third, this study aims to examine Chinese tourists' motivation and the relationship between their negotiation strategy and negotiation efficacy. Finally, this study intends to help tourism operators and policy-makers expand their knowledge about a type of tourism activity that is of growing importance.

2. Literature Review

2.1 Previous Studies on Nature-based Tourism

Dunlap and Van Liere proposed the 12-item NEP scale in 1978 (Dunlap 2008). This scale has been widely used by tourism and leisure scholars who research tourism activities' and tourists' impacts on the natural environment (e.g., Hawcroft and Milfont 2010; Luo and Deng 2008; Luzar et al. 1995). Through a series of studies, scholars have come to a general consensus that it is crucial to consider environmental attitude or environmental concern when examining tourists' participation in activities that have a significant impact on the environment, such as nature-based tourism, outdoor recreational activities, and adventure tourism (e.g., Luo and Deng 2008; Luzar et al. 1995; Nisbet et al. 2009; Zhong et al. 2011).

Among the researchers who have applied findings from the NEP scale to the study of tourism participation, the studies conducted by Kim et al. (2006), Luo and Deng (2008), Ong and Musa (2012), and White (2008), are the most relevant to this current research. Using an NEP scale to measure environmental concern, Ong and Musa (2012) investigate scuba divers' underwater behavior. In their framework, they hypothesized and confirmed that environmental concern can positively affect divers' environmental attitude and behavior. Their research has several implications for the

current study. Namely, it provides support for including an attitudinal scale when taking a quantitative approach to examining participation in nature-based tourism activity. Additionally, it demonstrates the link between tourists' environmental attitude and behavior. Their studies have shed new light on the tourism literature; nevertheless, their framework is designed to investigate eco-behavior and the current study aims to explore participation behavior.

Kim et al. (2006) studied NEP's applicability to motivation to attend the International Festival of Environmental Film and Video (FICA) at the city of Goias, Brazil. This is an event that brought together actors, directors, and producers of environmental cinema and videos. Kim et al. (2006) surveyed 422 participants and divided them into high, medium, and low environmental consciousness groups. The results showed there are some significant motivational differences among these three groups. In addition, they also hinted that participants who scored high on the NEP will more likely to attend FICA and behavior in a more environmentally-friendly way while attending. Their study is significant to this current research because the context is about managing the environment of an emerging market's tourism activity when a considerable amount of visitors situated in a rather limited geographic space. However, the linkage between environmental attitude and participation behavior was not examined empirically and the context is not nature-based tourism activities.

Luo and Deng (2008) examined environmental attitude's applicability to motivation to participate in nature-based tourism (i.e., Yellowstone Trail and Golden Whip Stream Trail). In addition, they examined three NEP subscales (i.e., humans over nature, limits of growth, and ecocrisis) with different types of participation motivations (i.e., novelty-self-development, return to nature, knowledge and fitness, and escape). They found that tourists' environmental attitude can positively affect their motivation to participate in nature-based tourism activities. Their research has

multiple implications for the current study. Mainly, it confirms environmental attitude can positively affect motivation to participate rather than motivation to behavior in environmental friendly ways. Although Luo and Deng's (2008) study has made important contributions to the tourism literature, there are opportunities for further study. For instance, their study did not examine tourists' participation behavior; therefore, the impact of environmental attitude and motivation on participation behavior is unexplored. Second, only one type of nature-based tourism activity is examined in their work; whether their findings have broader generalizability has yet to be tested.

White's (2008) study explores tourists' decision to participate in outdoor recreational activities by using the constraint-negotiation model. In his study, tourists' motivation is found to positively affect their negotiation strategy, which, in turn, can increase participation behavior. On the other hand, he confirmed constraints have a negative association with participation. In addition, White (2008) incorporated negotiation efficacy into his framework and found that it can positively affect motivation and negotiation strategy. White's study is comprehensive in terms of examining tourists' outdoor activity participation behavior. Nevertheless, White's (2008) framework cannot be used to achieve the research objectives of the present study without modification, as his framework was not intended to take participants' environmental attitude into account. As discussed earlier, nature-based tourism may have a negative impact on the natural environment, and preserving the environment is one of the main challenges faced by Chinese policy-makers and operators because China has the largest tourism market. With the gaps and opportunities within the current tourism and travel literature identified, the next section presents our proposed framework and hypotheses.

2.2 Research Framework and Hypotheses

The constraints-effects mitigation model and its modifications have been applied in many leisure, travel, and tourism contexts, and the results generally support the notion described above. The contexts that have been examined include visiting foreign countries (Huang and Hsu, 2009), skiing (Alexandris et al. 2007), taking dogs to tourism activities (Hung et al. 2014), visiting parks (White 2008; Wilhelm Stanis et al. 2009), and cruising (Hung and Petrick 2010). These studies' findings generally support the notion that constraints negatively affect participation; however, individuals will still participate if they have sufficient motivation and are equipped with the appropriate negotiation strategy.

After examining these studies and considering the context of their research, this paper adopts the models used by White (2008) and Hung et al. (2014). Both studies are relatively recent, and the activities used are outdoor, nature-based activities. The studies conducted by White (2008) and Hung et al. (2014) examined park visitors' participation behavior and dog owners' tourism activity participation behavior, respectively. They confirmed that constraints negatively affect participation; however, motivated visitors who have the necessary negotiation strategy will still be able to participate. Moreover, negotiation efficacy was confirmed to be an influential factor in an individual's tourism participation decision process. In addition to the variables mentioned above, tourists' environmental concern is included in the present framework as a new variable (Luo and Deng 2008). The following section provides the details and definitions of each variable, followed by this study's proposed hypotheses (Figure 1).

*Figure 1 about here.

The first relationship that will be examined is the impact of environmental concern on tourists' motivation to participate in nature-based tourism activities. According to Dunlap and Jones (2002, p.485), environmental concern refers to 'the

degree to which people are aware of problems regarding the environment and support efforts to solve them and/or indicate a willingness to contribute personally to their solution'. It should be mentioned that several scholars have used 'environmental concern' and 'environmental attitude' synonymously (Ong and Musa 2012). For the purpose of this current research, 'environmental concern' will be used.

To measure environmental concern, this study adopts the New Environmental Paradigm scale. The New Environmental Paradigm was proposed by Dunlap and Van Liere (1978) to measure humans' attitudes, concerns, and relationships with nature (Luzar et al. 1995; Dunlap 2008). The original scale included 12 items (Dunlap 2008; Dunlap and Van Liere 1978). Later studies have made minor modifications, but the general principles remain the same (Dunlap et al. 2000; Hawcroft and Milfont 2010). The NEP scale was widely used by scholars who studied issues related to environmental studies (e.g., Hawcroft and Milfont 2010; Thapa 1999; Thapa et al. 2005; Thapa and Dearden 2006) and in nature-based tourism participation research (e.g., Luo and Deng, 2008; Luzar et al. 1995; Ong and Musa 2012).

When studying environmental concern's influence on tourists' motivations to participate, Kim et al. (2006) and Luo and Deng (2008) hypothesized and confirmed this relationship in the context of festival activities and nature-based tourism. For Iso-Ahola and Allen (1982), motivation is the driving force behind people's decision to participate in activities. Other than the influence of environmental concern on tourists' motivation, the tourism literature has suggested that an individual's environmental concern can have a positive impact on his/her ecotourism participation behavior (Luzar et al. 1998). In the current study, participation refers to the number of times and the frequency of an individual participating in nature-based, tourism activities. Derived from the discussion above, the following hypotheses will be examined:

H1: Tourists' environmental concern has a positive influence on their motivation to participate in nature-based tourism.

H2: Tourists' environmental concern has a positive influence on their nature-based tourism participation behavior.

The third relationship to be examined is the impact of motivation on negotiation strategy. Negotiation strategy can be defined as those methods that individuals use and develop to cope with difficulties (Wilhelm Stanis et al., 2009). In Scott's (1991) study, three types of negotiation strategy were highlighted: acquiring information, altering schedule, and developing needed skills. Previous studies (e.g., Alexandris et al. 2007; Hung et al. 2014; Son et al. 2008; Wilhelm Stanis et al. 2009) have shown that people's motivation to participate in tourism activities has a positive and significant relationship with their negotiating strategy. The literature on nature-based tourism and adventure tourism activities provides similar examples of how participants' motivation can influence their abilities to negotiate through difficulties (Alexandris et al. 2007; Beedie and Hudson 2003; White 2008). To examine tourists' motivation to participate in nature-based tourism, this study proposes the following hypothesis:

H3: Tourists' motivation to participate in nature-based tourism will positively influence their negotiation strategy.

Fourth, White (2008) examined and confirmed negotiation strategy has a direct impact on participation behavior. As stated earlier, participation in this current study refers to the number of times and the frequency of an individual participating in nature-based, tourism activities. The positive effects of negotiation strategy on tourism participation have been tested and supported by Kay and Jackson (1991) and Alexandris et al. (2007). Based on the nature-based tourism literature, being equipped with the needed negotiation strategy is an important prerequisite for participation. For

instance, participants need to learn to swim before they can go canoeing or have the ability to alter their schedule before going on ski trips (Alexandris et al. 2007; Nyaupane and Andereck 2008). Thus, this study proposes its fourth hypothesis as follows:

H4: The strength of tourists' negotiation strategy will positively influence their likelihood of participating in nature-based tourism.

The next two relationships that will be examined are negotiation efficacy's impact on tourists' motivation and negotiation strategy. In White's (2008; p.348) study on outdoor recreation, he defined negotiation efficacy as 'people's confidence in their ability to successfully use negotiation strategy to overcome constraints they encounter'. Furthermore, according to Bandura (1997), this confidence can be developed through mastery of experience, vicarious experience, social persuasion, and participants' physiological and affective states. The result of White's (2008) and Hung et al.'s (2014) work shows that negotiation efficacy has a positive impact on tourists' motivation to visit parks and to take dogs to tourism activities. According to the relevant literature (e.g., Alexandris et al. 2007; Nyaupane and Andereck, 2008), tourists will be more motivated (e.g., to gain a sense of achievement and enjoyment or to escape from routine) to participate in nature-based tourism activities if they are confident in their ability to overcome the challenges associated with the activities that they will perform. This confidence can be a result of their previous successful experience or persuasion from the people they value. Thus, this research proposes the following:

H5: Tourist' negotiation efficacy on the issue of participating in nature-based tourism will positively influence their motivation.

In addition, negotiation efficacy also has the ability to affect negotiation strategy (White 2008; Hung et al. 2014). In Hung et al.'s (2014) study on dog owners' tourism

activity participation behavior, they revealed that dog owners who have the confidence to take their dogs to nature sightseeing and recreational activities, due to successful prior experience or knowing the people they value have successfully done so before, will be more likely to be better at acquiring needed information and gaining needed skills to take their dogs to tourism activities. In the context of nature-based tourism, having previous successful experiences and knowing other people who have successfully overcome obstacles are likely to increase negotiation strategy (e.g., altering schedule to make time, gathering sufficient funding, and obtaining needed skills) because participating in this type of tourism activity involves certain obstacles that need to be lifted (Beedie and Hudson 2003; Nyaupane et al. 2004; White 2008; Wu and Liang 2011). Based on the above review, the following hypothesis will be examined:

H6: Tourists' negotiation efficacy on the issue of participating in nature-based tourism will positively influence their negotiation strategy.

The last hypothesis to be examined is the relationship between tourism constraint and nature-based tourism participation behavior. Constraint can be defined as the reasons that are assumed by researchers and/or perceived or experienced by individuals to inhibit or prohibit participation in leisure and/or tourism activities (Jackson 2000; Nyaupane et al. 2004; Hung et al. 2014; Pennington-Gray and Kerstetter 2002). In the case of nature-based tourism, these constraints may be the results of intrapersonal reasons, such as physical fitness (e.g., Alexandris et al. 2007; Beedie and Hudson 2003); structural factors, such as lack of transportation (e.g., Nyaupane et al. 2004; Nyaupane and Andereck 2008); or interpersonal influences, such as lacking a companion to accompany them (e.g., Crawford and Godbey 1987; Hung et al. 2014; White 2008). The negative correlation between constraints and tourism participation, including nature-based tourism and adventure tourism, has been

tested and consistently supported by empirical evidence (Alexandris et al. 2007; Gilbert and Hudson 2000; Hung and Petrick 2010; Nyaupane et al. 2004; Nyaupane and Andereck 2008; Son et al. 2008; White 2008; Wilhelm Stanis et al. 2009). Thus, the current study proposes the following:

H7: Constraints on nature-based tourism will negatively influence tourists' participation behavior.

Based on the literature reviewed, the identified research gaps, and the proposed hypotheses, the following section presents the methods used in the present study to reveal the variables that may influence tourists' participation in nature-based tourism activities.

3. Method

3.1 Sampling and Data Collection Methods

This current research's selection of tourism activities for this study followed the approach used by Chen et al. (2011). First, Mehmetoglu's (2007) list of nature-related activities was considered. This list consisted of two categories: challenging nature-based activities (i.e., diving/snorkeling, riding, climbing, and going on whale safari) and relaxing nature-based activities (i.e., hiking, cycling, fishing, and swimming). Second, this list of activities was shared with scholars in the field of tourism research and practitioners working in the nature-based tourism industry to solicit feedback on the accessibility of these activities. By matching these results and considering this research's objectives and framework, the activities within the 'relaxing nature-based activities' were chosen. This research did not include hunting as it is generally less accessible in China.

Once the survey was finalized, a total of 637 participants were recruited for the main study using an on-site purposive sampling method. Among these returned surveys, 409 were deemed as effective. Respondents were contacted at a number of

pre-selected locations, such as nature-based tourism-related clubs and shops that sell equipment for nature-based tourism activities, because the respondents in these locations were more likely to have participated in nature-based tourism. The sampling areas for the main research included Beijing, Shanghai, and Guangzhou. These are China's tier-one cities with the largest number of potential tourists (Li et al. 2010).

To be eligible to participate in the survey, respondents had to 1) have participated in nature-based tourism activities during the past twelve months and 2) be older than 18 years of age. The formation of the tourism activities used in this study was based on the reviewed literature (Beedie and Hudson 2003; Luo and Deng 2008; Luzar et al. 1995; Nyaupane et al. 2004; Ong and Musa 2012; Mehmetoglu 2007; Wu and Liang 2009). The demographic breakdowns of the sample set can be found in Table 1.

*Table 1 about here.

3.2 Questionnaires Used in the Main Study

The participants completed a survey that evaluated tourism constraints and environmental concern. The survey consisted of 50 questions, excluding demographic information. The target research question was 'What are the variables that affect tourists' nature-based tourism participation behavior?' All of the variables used to formulate this model were measured with multiple items (Table 2). Unless otherwise indicated, a seven-point Likert-type scale was used when designing the items. The items for each variable are presented in Table 2. Environmental concern (15 items), motivation (9 items), negotiation strategy (12 items), negotiation efficacy (3 items), tourism constraints (12 items), and tourism participation (2 items) were taken from the existing literature (Alexandris et al. 2007; Lou and Deng, 2008; Nyaupane and Andereck 2004; Hung et al. 2014; White 2008). For data input, four items from the NEP scale were reverse coded (Kang et al. 2012). In this study, the Cronbach's alpha

for each scale was reliable. These values ranged from 0.77 to 0.93.

*Table 2 about here.

4. Data Analysis

4.1 Model Measurement

The data were analyzed using IBM SPSS AMOS 20. As recommended by Anderson and Gerbing (1988), a two-step approach to structural equation modeling (SEM) was used in this research. After removing items with low contributions, all factor loadings on the intended latent variable are significant and greater than 0.7 (Fornell and Larcker 1981), and the squared-multiple correlations supports the reliability of the items used. Convergent validity was assessed in terms of factor loadings and average variance extracted (AVE). According to Fornell and Larcker (1981), AVE is the average variance shared between a construct and its measurement. As shown in Table 2, AVE values ranged from 0.51 to 0.87; therefore, convergent validity was confirmed (Fornell and Larcker 1981). Finally, discriminant validity was assessed by comparing the AVE of each individual construct with the shared variances between this individual construct and all other constructs. Because the AVE value for each construct was greater than the squared correlation between constructs, discriminant validity was confirmed (Table 3).

*Please insert Table 3 about here.

4.2 Structural Model

After the overall measurement model was found to be acceptable, the structural model was tested with the entire sample again (N=409). The model fit is good ($\chi^2=370.25$, $df=125$, RMSEA=0.069, CFI=0.939, GFI=0.909). The results gathered from examining the proposed hypotheses are presented in Table 4 and Figure 2. H1 is supported ($t=10.29$; $\beta=0.46$; $p<0.001$); therefore, environmental concern has a positive impact on tourists' motivation to participate in nature-based tourism activities.

H2 suggested that environmental concern would have positive influence on participation behavior; nevertheless, the result ($t=-.31$; $\beta=-0.04$; $p>0.1$) shows this relationship to be an insignificant one. This study's H3 is supported as motivation was shown to have a positive impact on negotiation strategy ($t=10.24$; $\beta=0.67$; $p<0.001$). The results support the H4 hypothesis ($t=1.87$; $\beta=0.30$; $p<0.05$) and therefore confirm that negotiation strategy can positively influence participation behavior. H5 and H6 are both supported ($t=5.48$; $\beta=0.24$; $p<0.001$ and $t=5.77$; $\beta=0.23$; $p<0.001$, respectively). In other words, negotiation efficacy can positively influence tourists' motivation and their negotiation strategy. Finally, this study's findings support H7 ($t=-9.73$; $\beta=-1.60$; $p<0.001$). The more constraints there are, the less likely tourists will be to participate in nature-based tourism activities.

This study has checked the common method variance by using Harman's one-factor test. Un-rotated factor analysis generated all factors with eigenvalues greater than one. The first factor account for 27.09% of variance (<50%); therefore, indicating that common method bias is unlikely to be a concern in this current research (Podsakoff et al. 2003).

*Please insert Table 4 here.

*Please insert Figure 2 here.

Sobel tests were performed to determine the mediating effects between variables (Sobel 1982). First, because the Z value was found to be greater than 1.96, we can conclude that motivation fully mediated the relationship between environmental concern and negotiation strategy. Second, motivation was determined to have a partially mediating role in the relationship between negotiation strategy and negotiation efficacy ($Z>1.96$). This finding is consistent with White's (2008) study. Third, negotiation strategy fully mediated the relationship between negotiation efficacy and tourism behavior. In other words, tourism participation is directly

affected by the actual negotiation strategy utilized rather than the individual's confidence regarding his/her negotiation capabilities.

5. Discussions and Managerial Implications

5.1 Theoretical Implications

As stated earlier, nature-based tourism is an important part of ecotourism industry and research. According to the World Tourism Organization, about 10-20% of all international travel relates to nature experience (Fredman and Tyrväinen 2010). However, little is known about how environmental concern can affect tourists' decision to participate in nature-based tourism activities. To narrow the gaps in the ecotourism literature, this research incorporates tourists' environmental concern into a tourism constraint-negotiation model to examine Chinese tourists' participation in nature-based tourism activities. The results show this model is suitable to examine tourists' participation behavior. With the applicability of the proposed model confirmed, the implications of our findings and how they can narrow the gaps in the existing tourism literature will be further discussed.

First, the incorporation of the environmental concern into a constraint-negotiation model extends the constraint theory and broadens the NEP scale's application. Researchers have been using the NEP scale since 1978 to measure environmental concern (Dunlap 2008) and the constraint-negotiation model since the 1960s for the purpose of revealing the positive and negative factors that affect tourists' participation behavior (Buchanan and Allen 1985). Nevertheless, no known tourism or environmental study has incorporated the NEP scale into the constraint-negotiation model when examining nature-based tourism participation behavior. The results of the present study show that environmental concern is an influential component in the constraint-negotiation model when examining tourism activities that take place outdoors and in the natural environment. As mentioned

earlier, some of these tourism activities can influence the natural environment, as they occur in remote and peripheral areas.

Second, our results confirm that environmental concern have a positive effect on tourists' motivation while taking other influential factors into account. Luo and Deng's (2008) research reveals that environmental concern can affect tourists' motivation; however, they did not consider other potential influences (e.g., on participation behavior) or other components (e.g., negotiation strategy and tourism constraints) that can affect tourists' behavior. The framework used in this study placed environmental concern in a wider context by considering other positive and negative forces that can affect tourists' behavior.

Third, in Kim et al.'s (2006) and Luzar et al.'s (1998) study on eco-themed festival (FICA) and ecotourism, they suggested that individuals' who scored high on the NEP scale were also more likely to participate in these activities. This study's finding does not support the contention that environmental concern can affect tourists' behavior directly. In other words, whether individuals have strong or weak environmental concern will not directly affect their nature-based tourism activities participation behavior. Although this relationship is not significant in the context of participating in nature-based tourism, it may still have implications for the tourism literature. There are several potential explanations for this outcome. Previous research's contexts are not parallel with this current study might be one of the reasons. Kim et al. (2006) suggested environmental concern should have an influence on participation behavior toward the end of their research paper; however, it was not examined empirically. Furthermore, their research context was about festival whereas this current study investigates nature-based tourism. As for Luzar et al.'s (1998) study, they investigated Louisiana' tourism activities in the mid-90s. That environment can be quite different from this research's environment, which is on Chinese tourism

industry in the mid-2010s. Another explanation is that this research studies nature-based tourism participation behavior; therefore, the respondents are not just trying to get closer with nature, but to participate in activities as well (e.g., fishing and hiking). Under this research's context, environmental concern alone is not sufficient to trigger participation behavior.

Fourth, this current research also reconfirms that tourists who are highly motivated (e.g., want to gain a sense of enjoyment or an opportunity to socialize with friends) will be better at utilizing their negotiation strategy (e.g., make time to participate and plan ahead to obtain sufficient funds), which will allow them to participate more often in this tourism activity. It should also be mentioned that tourists' confidence in their ability to overcome obstacles (i.e., negotiation efficacy) will increase motivation and improve negotiation strategy. Finally, as previous literature has noted, constraints on nature-based tourism (e.g., physical fitness, lack of companions, and the associated costs) can negatively influence Chinese tourists' participation behavior. Although the findings on the constraint-negotiation model largely reconfirmed existing knowledge, this research still has additional value. By using Mehmetoglu's (2007) list of nature-based tourism activities, this current study covered a wider range of activities, including hiking, cycling, fishing, and swimming. Previous literature on this topic either covers one activity or focused on only one aspect of the constraint-negotiation model (e.g., Alexandris et al. 2007; Luo and Deng 2008; Nyaupane et al. 2004; White 2008; Wilhelm Stanis et al. 2009).

5.2 Managerial Implications

China is the largest and fastest-growing market for tourism. At the same time, preserving the natural environment is one of the top priorities for officials. Nature-based tourism activities can have profound impact on the environment and the economy (Beedie and Hudson 2003; Gu et al. 2012; Han and Ren 2001; Li 2004; Li et

al. 2010; Luo and Deng 2008; Luzar et al. 1995; Nyaupane et al. 2004; Ong and Musa 2012; Mehmetoglu 2007; Ryan et al. 2010; Wu and Liang 2009; Zhong et al. 2011).

Therefore, the findings of this study may have implications for practitioners and policy-makers.

Based on this study's results, tourism service providers' main task is to identify and stimulate those who want to become connected with nature. Establishing partnerships with relevant equipment shops (e.g., shops that sell hiking equipment and bicycles), promoting services through relevant fan clubs, and conducting word-of-mouth marketing campaigns in online forum that discuss nature-based tourism activities can be useful

Once consumers have been successfully targeted, it is likely they will have high motivation to participate and will therefore utilize their negotiation strategies accordingly, which in turn will allow them to participate more frequently in this activity. Moreover, service providers may want to consider using sports personalities who specialized in these activities and testimonies from ordinary individuals who have successfully participated in relevant activities as endorsement materials. Knowing someone they respect and admire has successfully participated in the activity (i.e., negotiation efficacy) will improve participants' level of motivation and negotiation strategy. Alternatively, service providers can try to lower constraints specific to their activity. For example, providing relevant training courses to improve individuals' physical fitness may lower the intrapersonal constraints for activities that are physically demanding. For activities that are team-oriented (i.e., rafting and mountaineering), organizing and managing a discussion forum may lower the interpersonal constraints by helping individuals to find teammates more easily.

For policy-makers who want to balance between economic development and preservation of the natural environment, this study's findings have implications as

well. Policy-makers can manage tourists' motivation to participate by influencing their environmental concern. Motivation will then affect participation behavior through affecting negotiation strategy. This can be accomplished through incorporating environmental-related issues and debates into school curriculum and / or highlighting some of the more pressing issues through the media. On the other hand, adjusting individuals' environmental concern will be difficult and time consuming because it represents a person's affect and beliefs regarding environmentally-related issues and activities. Additionally, identifying tourists' level of environmental concern can be also a challenging task.

An alternative approach that will have a more immediate effect for policy-makers is to manage the service providers through adjusting the structural constraints associated with relevant activities. For instance, one option is taxing service providers, which will have the downstream effect of increasing costs for tourists to participate. Additionally, because some nature-based tourism activities have impact on the environment and require specific knowledge, policy-makers could require individuals to complete relevant training courses (e.g., first-aid or environmental protection training sessions) before they can participate. This requirement will provide additional protection to the participants while increasing structural constraints, thereby lowering the number of participants. With this research's contribution to the literature and the practices under discussion, this study's final section presents the limitations of this research as well as future research opportunities.

6. Limitations, Future Studies, and Conclusion

To conclude, this study addressed the issue of participation in nature-based tourism in China, which is the largest and fastest-growing market for tourism. In terms of theoretical contribution, we examined Chinese tourists' decisions to

participate in nature-based tourism activities using a constraint-negotiation model that incorporated variables that can positively and negatively influence owners' behavior. These variables include tourists' environmental concern, which was measured using the NEP scale. Practitioners and policy-makers can expand their knowledge about this type of tourist and formulate suitable strategies to serve their visitors and preserve the environment.

Despite the contributions mentioned above, this study has some limitations. First, the participants of this research live in China's tier-one cities; therefore, their attitude toward the natural environment may differ from the attitude of individuals from tier-two cities (e.g., Nanjing, Nanchang, and Xiamen). Although tier-two cities as individual cities have fewer residents and less affluence compared with China's three tier-one cities, they do have more tourists. The results of this study also need further examination in different contexts before they can have broader generalizability. Second, this current research focuses on relaxing nature-based activities (i.e., hiking, cycling, fishing, and swimming). Future scholars may want to examine whether this study's findings can be applied to challenging nature-based activities (i.e., diving/snorkeling, riding, climbing, and going on whale safari). Lastly, this research did not differentiate individuals' behavior when participating in activities alone and with a group of participants. Future scholars may want to investigate subjective norms' potential influence on individual tourists.

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Table 1- Characteristics of the participants (N=409)

	Demographic traits	%
Area of residence	Beijing	33
	Shanghai	45
	Guangzhou	22
Gender	Male	59.9
	Female	40.1
Marital status	Married	80.5
	Unmarried	19.5
Age	18-20	3.2
	21-30	23.2
	31-40	40.1
	41-50	21.8
	51-60	9.5
	61 or above	2.2
	Lower than high school degree	22.0
Education	High school degree	16.9
	University or college degree	42.3
	Postgraduate degree or above	18.8

Table 2 Descriptive Analysis of the Measures

Measurement items	SFL	CR	AVE
Constraints		.81	.59
<i>Intrapersonal constraints</i>	.71		
1. The activity is too physically demanding.			
2. The activity involved too much risk.			
3. Lack of information.			
4. Don't have the skills or physical ability.			
<i>Interpersonal constraints</i>	.85		
1. Have no one to go on a trip.			
2. Family and friends are not interested.			
3. The people I know live or work too far away.			
4. Companions prefer other things.			
<i>Structural constraints</i>	.73		
1. Fees are too high.			
2. Weather conditions in natural areas are poor.			
3. Equipments to participate in nature-based tourism are expensive.			
4. I have no time to go for this activity.			
Environmental concern (NEP)		.86	.68
<i>Humans over nature</i>	.70		
1. Humans have the right to modify the natural environment to suit their needs. ^r			
2. The earth has plenty of natural resources if we just learn how to develop them. ^r			
3. Humans will eventually learn enough about how nature works to be able to control it. ^r			
4. The so-called "ecological crisis" facing humankind has been greatly exaggerated. ^r			
<i>Limits to growth</i>	.92		
1. We are approaching the limit of the number of people the earth can support.			
2. Despite our special abilities human are still subject to the laws of nature.			
3. The earth is like a spaceship with very limited room and resources.			
4. The balance of nature is very delicate and easily upset.			
<i>Ecocrisis</i>	.83		
1. Humans are severely abusing the environment.			
2. Plants and animals have as much right as humans to exist.			
3. If things continue on their present course, we will soon experience a major ecological catastrophe.			
4. When humans interfere with nature it often produces disastrous consequences.			
Motivation		.77	.52
I participate in this activity because...			
<i>Novelty-self-development</i>	.73		
1: I can experience new / different things.			

2: I can experience excitement.			
3: I can develop my skills and abilities.			
<i>Return to nature</i>	.77		
1: I can view scenery.			
2: I can experience tranquility.			
3: I can return to nature.			
<i>Escape</i>	.65		
1: I can be away from the crowds and noise.			
2: I can relax.			
3: I can enhance family and friend affinity.			
Negotiation strategy	.81	.51	
In order to participating in this activity, I will need the ability to...			
<i>Improve knowledge</i>	.72		
1: get relevant information about how to get to this activity's location.			
2: get relevant information about this activity through TV, books, articles, magazines, or internet.			
3: get relevant information about how to take care of myself during the trip.			
<i>Changing interpersonal relations</i>	.70		
1: try to find people with similar interest			
2: ask my family / friends to share the chores.			
3: bring other people to make me feel safer.			
4: organize events with my own group.			
<i>Budgeting</i>	.73		
1: try to obtain enough fund for tourism activities			
2: plan my budget to attend tourism activities			
<i>Time management</i>	.70		
1: prioritize my tourism activities			
2: set aside time to go to nature-based tourism activities.			
3: arrange my weekly schedule properly.			
Negotiation efficacy	.86	.68	
1: In the past, I have been successful getting around the barriers to my nature-based tourism activities.	.81		
2: People I admire find ways around challenges they face when trying to participate in nature-based tourism activities.	.88		
3: My family and friends encourage me to participate in nature-based tourism activities, even when there are obstacles.	.78		
Participation	.93	.87	
1: In the past year, I participated in nature-based tourism activities: (1) 0 time, ..., (7) Above 15 times	.92		
2: In the past year, I ____ participate in nature-based tourism activities: (1) never, ..., (7) almost always	.95		

^r Questions are reverse coded

Table 3 Correlation between Constructs following CFA

	C	M	N	EC	NE	P
1. Constraints (C)	.77					
2. Motivation (M)	-.24	.72				
3. Negotiation strategy (N)	-.24	.66	.71			
4. Environmental concern (EC)	-.37	.52	.41	.82		
5. Negotiation efficacy (NE)	-.04	.33	.48	.13	.82	
6. Participation (P)	-.45	.28	.20	.34	.08	.93

^a Bold numbers on the diagonal parentheses are square root of each construct's AVE value

Table 4 Correlation between Constructs following CFA

Paths	β^1	t-Value	Result
H1: EC→M	0.46	10.29***	Supported
H2: EC→P	-.04	-.31	Not supported
H3: M→N	.67	10.24***	Supported
H4: N→P	.30	1.87*	Supported
H5: NE→M	.24	5.48***	Supported
H6: NE→N	.23	5.77***	Supported
H7: C→P	-1.6	-9.73***	Supported

¹Standardized beta coefficient

*Significant at $p < 0.05$; **Significant at $p < 0.01$; ***Significant at $p < 0.001$.

EC= environmental concern; P= participation; N= negotiation; M= motivation; NE= negotiation efficacy; C= Constraints

Figure 1. Proposed Research Framework

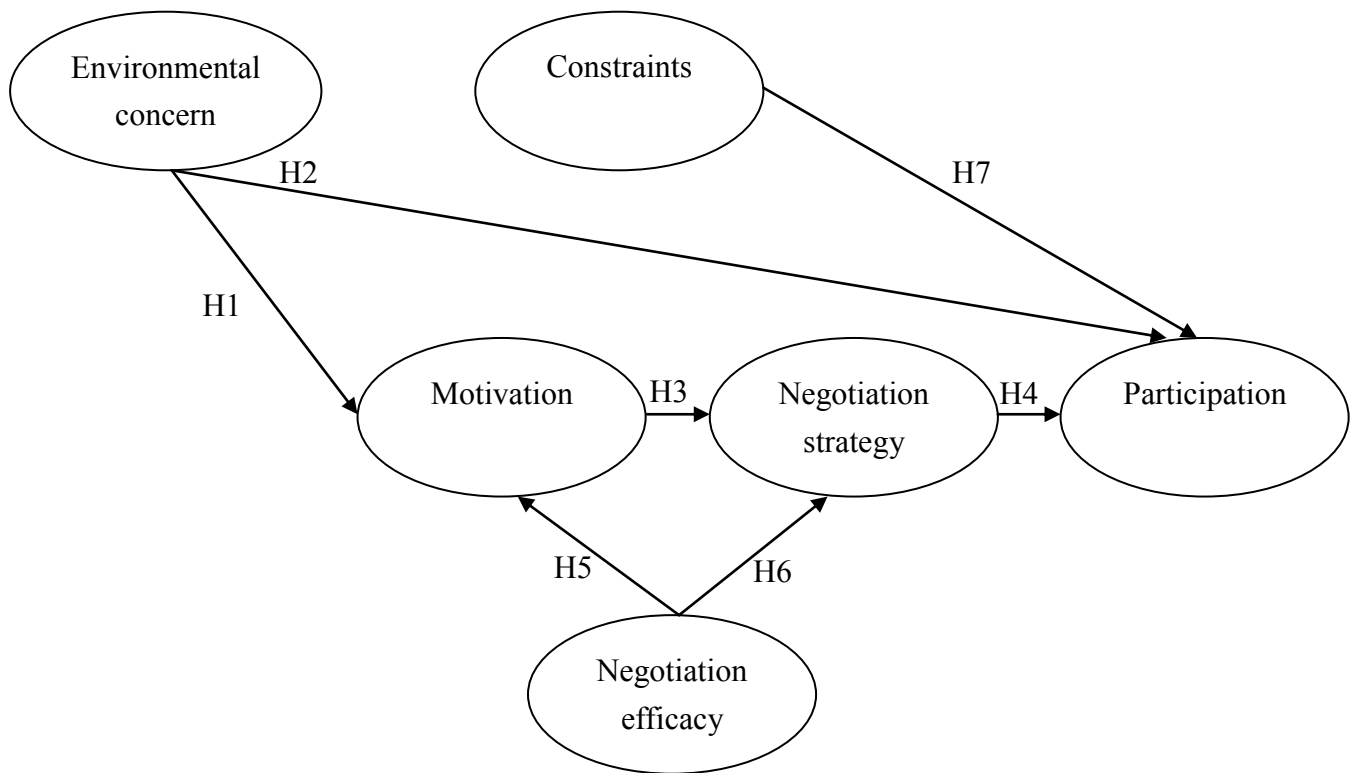
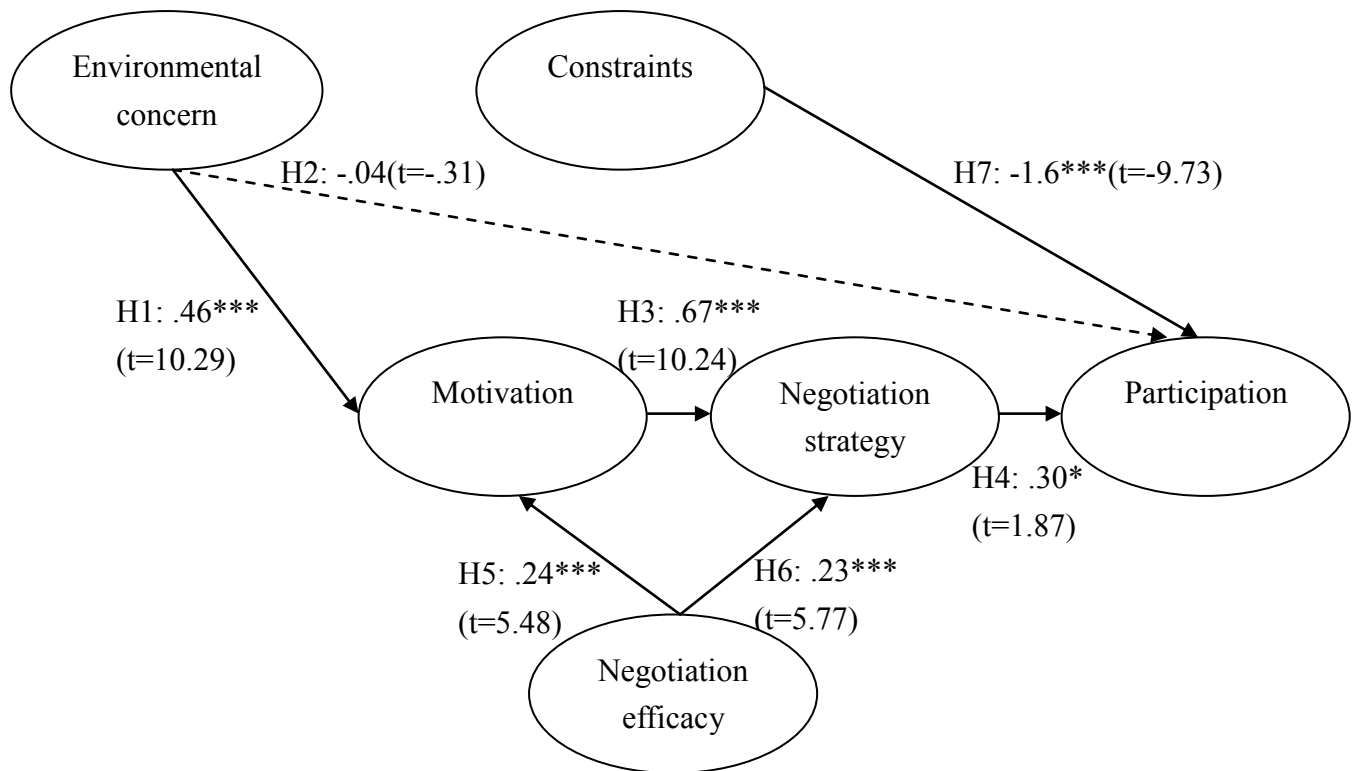


Figure 2. Results from Structural Equation Modeling- Final Model (N=409)



Number on path: standardized parameter estimation, Number in parentheses: T-Value.
 Remark: *Significant at $p < 0.05$; **Significant at $p < 0.01$; ***Significant at $p < 0.001$.
 Model fit: $\chi^2/df = 2.96$; $p < 0.001$; RMSEA=0.069, CFI=0.939, GFI=0.909